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SECONDARY ONOMATOPOEIA IN RUSSIAN (PRELIMINARY REPORT).

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SECONDARY ONOMATOPOEIA, ALSO REFERRED TO AS "SOUND-SYMBOLISM," DESIGNATES THE REPRESENTATION IN SPEECH SOUNDS OF NON-ACOUSTIC EXPERIENCES. THE NON-ACOUSTIC EXPERIENCES DEALT WITH ARE VISUAL (IMPRESSIONS OF MAGNITUDE AND LUMINOSITY) AND EMOTIONAL (MOODS OF GLOOM AND HAPPINESS). THIS PAPER DESCRIBES AN EMPIRICAL STUDY DESIGNED TO EXPLORE THE POSSIBILITY THAT--(1) RUSSIANS ASSOCIATE DIFFUSE VOWEL SOUNDS WITH SMALL MAGNITUDES, AND COMPACT VOWEL SOUNDS WITH LARGE ONES, AND (2) THEY ASSOCIATE ACUTE VOWEL SOUNDS WITH BRIGHT LIGHT AND HAPPINESS, AND GRAVE VOWEL SOUNDS WITH DARKNESS AND GLOOM. THIS STUDY WAS TAKEN UP IN VIEW OF PREVIOUS EXPERIMENTS, ESPECIALLY THOSE REPORTED BY MAXIME CHASTAING IN "ARCHIVUM LINGUISTICUM." THE RESULTS OF THE EXPERIMENT DESCRIBED HERE (CARRIED OUT IN THE SOVIET UNION IN 1967 WITH APPROXIMATELY 200 NATIVE RUSSIANS) SEEM TO INDICATE THAT VOWEL SOUNDS HAVE THE SAME CONNOTATIONS FOR RUSSIANS AS THEY DO FOR ENGLISH AND FRENCH SPEAKERS. SECONDARY ONOMATOPOEIA MAY THEREFORE BE A UNIVERSAL PHENOMENON. (AUTHOR/AMM)

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Secondary Onomatopoeia in Russian
(Preliminary report)

Secondary onomatopoeia, also referred to as "sound-symbolism," designates the representation in speech sounds of non-acoustic experiences. The non-acoustic experiences dealt with in this paper are visual and emotional. The visual are impressions of magnitude and luminosity; the emotional are moods of gloom and happiness.

This paper describes an empirical study designed to explore the possibility that Russians associate diffuse vowel-sounds with small magnitudes, and compact vowel-sounds with large ones. And, also, the possibility that Russians associate acute vowel-sounds with bright light and happiness, and grave vowel-sounds with darkness and gloom.

This study was taken up in view of the apparently positive results of experiments with American and French students, and especially a series of experiments reported by Maxime Chastaing in 1962 in Archivum Linguisticum. The experiments seem to indicate that secondary onomatopoeia is not entirely a myth--at least for English and French speakers.

Approximately 200 native Russians participated in our experiment, which was carried out in the Soviet Union last summer. The results seem to indicate that vowel-sounds have the same connotations for Russians as they do for English and French speakers. Secondary onomatopoeia, then, may be a universal phenomenon.

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Two types of questionnaires were used for the experiment. The first

type contained fourteen monosyllabic nonsense combinations, patterned consonant-vowel-consonant, and two vowel-consonant nonsense combinations, --all phonotactically possible in Russian. The combinations included vowels between velar stops, between dental stops, between dental fricatives, and between labial stops. The initial consonants were voiced, the terminal--unvoiced. (Only unvoiced consonants can occur in terminal positions in Russian.)

Each nonsense combination in the questionnaire was followed by a pair of polar concepts, separated by a five-step scale (__:__:__:__:__). Two pairs of concepts represented polar magnitudes: "little drops" vs. "immense tree"; "chick" vs. "big house." Another pair represented polar luminosities: "darkness" vs. "bright light." A fourth pair represented polar moods: "happiness" vs. "unhappiness, calamity."

The four pairs of concepts were listed next to the nonsense combinations alternatively--in order to prevent systematization of the responses.

The instructions at the beginning of the questionnaire explained that the purpose was to verify some theories on the meaning of sounds in language. Respondents were requested to guess the meaning of each nonsense combination in reference to the two polar concepts following it. If it seemed to them that it did not signify either of the concepts, or that it signified both to the same degree, they were to mark X in the middle space of the scale. The extreme spaces were designated for perfect matches, and the two intermediate spaces--for partial matches.

Respondents were requested not to place more than one X on each scale, not to skip scales, and to judge each combination independently, without referring back to their preceding responses.

(In administering the questionnaire, it turned out that the Russians had difficulty in comprehending written instructions. Additional, oral instructions were almost always indispensable.)

In the second type of questionnaire, the same polar concepts were listed singly, each followed by five pairs of nonsense combinations, each pair separated by a five-step scale, e.g.,

Immense tree

gok__:__:__:__:__zig

dat__:__:__:__:__ik

It was felt that "happiness" would be too abstract as a single referent, and it was therefore replaced by "sunny day" on the second questionnaire. Otherwise, the same concepts were used, and the same nonsense combinations, with some additional combinations. Polar nonsense combinations contained no common phonemes, again in order to avoid systematized responses.

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The subjects fall into three groups of more or less equal size. Two of the groups consist of freshmen and sophomore students at Moscow University. Philology majors are in one group, geology and chemistry majors in the other. The third group is mixed. One half comprises advanced students in philology, and full-fledged philologists and linguists ranging in age from 20 to 37. The other half comprises Russians ranging in age from 16 to 61, in education from elementary to post-graduate, and in occupation from miner to orchestra conductor.

Most of the respondents were quite interested in the project, though many of them doubted their ability to determine the meaning of nonsense words.

However, they found out that they were able to associate the nonsense combinations with referents, and often even muttered "of course!" when they made judgements. In making judgements, they often sounded the nonsense forms.

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Each questionnaire was answered by approximately 100 subjects with no significant differences in the responses to the two questionnaires. Neither were there significant differences in the response patterns of the different groups of subjects.

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In general, the subjects found it easier to associate the unintelligible combinations with dimensions of magnitude rather than with luminosities and moods. They used the middle, "undecided" space in the eight scales of magnitude on the first questionnaire only 140 times. In other words, each respondent used the undecided space only 1.5 times in eight judgements. In reference to luminosities and moods, the corresponding figure is 216 times, or 2.3 times per person.

The rate of 2.3 times per person on eight judgements is also rather low. It means that the subjects were able to associate in over 70 per cent of the cases. This percentage represents references to luminosities and moods. The percentage of positive associations with luminosities was slightly higher than in regard to moods, but the difference is quite minor.

The greater ease of association with magnitudes is demonstrated also by the greater degree of agreement among subjects in magnitude associations. Similarly, in associations with luminosities there was slightly greater agreement than in associations with moods.

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As I have already mentioned, the results of this study confirm findings with English and French speakers: In reference to magnitudes, the majority of subjects consistently preferred combinations with compact /o/ and /a/ to denote the large house and the immense tree; and combinations with the diffuse /i/ and with the diffuse interpalatal /u/ (as in ljudi) to denote "little drop" and "chick."

Combinations with the vowels /e/, /u/, and /ɨ/ (a back close vowel with spread lips) seemed to be considered more appropriate for the chick and the little drop--but with low certainty and low consistency.

In reference to luminosities and moods, the majority of subjects consistently preferred combinations with grave /o/ and /u/ for "darkness" and for "calamity," and rejected the same combinations in reference to "bright light," "sunny day," and "happiness." Here combinations with acute /i/ were preferred by the majority quite consistently.

Combinations with /e/ and /a/ were more often associated with "light," "sunshine," and "happiness" than with "darkness" and "calamity," whereas combinations with the grave /ɨ/ tended to be associated with "darkness" and "calamity."

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Consonants seem to be generally of minor significance. But, certain consonants do seem to possess some suggestive potential, as they were found to enhance the suggestion of the vowel-sounds. Especially the voiced velar stop, which is both diffuse and grave, enhanced suggestions of the larger magnitudes as well as suggestions of darkness and its corresponding mood.

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Primarily acoustic terms were used in this paper, as such associations seem to be indeed synaesthetic rather than kinaesthetic (that is, dependent on articulatory positions). Articulatory positions could conceivably account for magnitude associations, but hardly for luminosity and mood associations. These are probably founded, to use Roman Jakobson's phrasing, "on a phenomenal connection between different sensory modes, in particular between the visual and auditory experience."

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In analyzing the questionnaires, two additional possibilities were taken into consideration:

1. The possibility of primary onomatopoeia in reference to "chick" and "little drop." As, for instance, in the nonsense combination /biɲ/, which, indeed, was associated with "chick" and "little drop" by the great majority of subjects.

2. The possibility that subjects associated on the basis of phoneme correspondences. As, for instance, in their association of /det, / with solnečnyj den' (sunny day). Still, they did not associate /det, / with the immense tree, derevo , in spite of the same phoneme correspondence.

Primary onomatopoeia and phonemic correspondences may be relevant in regard to certain responses, but these factors cannot account for the whole consistent pattern of responses.

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